

Information Item

Status of the Evaluation of Municipal and Domestic Supply (MUN) Beneficial Use in Agriculturally Dominated Water Bodies



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Background

During the October 2011 Triennial Review, staff were directed to:

- ✓ Evaluate MUN designation in constructed Ag drains
- ✓ Determine appropriate beneficial uses and level of protection for Ag dominated water bodies

Issues

- NPDES permit adoptions
 - Concern during permit adoption that MUN may be inappropriate
 - Expensive upgrades needed to meet MUN Water Quality Objectives
 - Flexibility allowed in permit to pursue Basin Plan Amendment
 - Example: City of Willows Time Schedule Order

“Sources of Drinking Water Policy” (Resolution 88-63)

- MUN Beneficial use applies to all water bodies unless they are specifically listed (in the Basin Plans) as water bodies that are not designated with MUN
- 88-63 Exception
 - *“The water is in systems designed or modified for the primary purpose of conveying or holding agricultural drainage waters”*
- To use exceptions, Basin Plans require a Basin Plan Amendment

Link to CV-SALTS

(Central Valley Salinity Alternatives for Long-Term Sustainability)

- Identified cities of Biggs, Colusa, Live Oak and Willows as potential MUN archetype (case study)
- Options to consider:
 - De-designation
 - Use refinement (e.g. “treatable”)
 - Site Specific Objectives

Sacramento River Basin Archetypes

- Case study area in the Sacramento River Basin
- Centered around the receiving waters for the four POTWs
- May be used to develop a template for the Ag dominated water bodies in the whole Central Valley region



DRAFT MUN Evaluation Work Plan

Activity	2011		2012				2013				2014				2015			
	N	D	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Strategic Planning																		*
Compile Background																		*
Survey Conditions/Uses																		*
Initial Alternatives/CEQA Scoping																		*
Design/Conduct/Assess Monitoring																		*
Refine Alternatives									*									*
Prepare Staff Rpt/SED																		*
Public Review																		*
Peer Review																		*
Regional Board Adoption																		*
State Board Approval																		*
OAL Approval																		*

*Decision on pursuing basin plan amendment



= staff collaboration

= anticipate contract \$\$\$ need

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Activity	2011		2012				2013				2014				2015			
	N	D	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
✓ Strategic Planning																		*
✓ Compile Background																		*
✓ Survey Conditions/Uses																		*
✓ Initial Alternatives/CEQA Scoping																		*
→ Design/Conduct/Assess Monitoring																		*
→ Refine Alternatives									*									*
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Strategic Planning

- Project Participants

- ✓ CV Water Board
- ✓ CV-SALTS
- ✓ Four POTWs
- ✓ DFG
- ✓ CDFA
- ✓ Delta Stewardship Council
- ✓ US EPA
- ✓ State Board
- ✓ Agriculture
- ✓ Water Supply
- ✓ Urban Water Users

- Stakeholder Meetings

- ✓ Four meetings in last year

- Website/Lyris List

- ✓ http://www.waterboards.ca.gov/centralvalley/water_issues/salinity/mun_beneficial_use/index.shtml

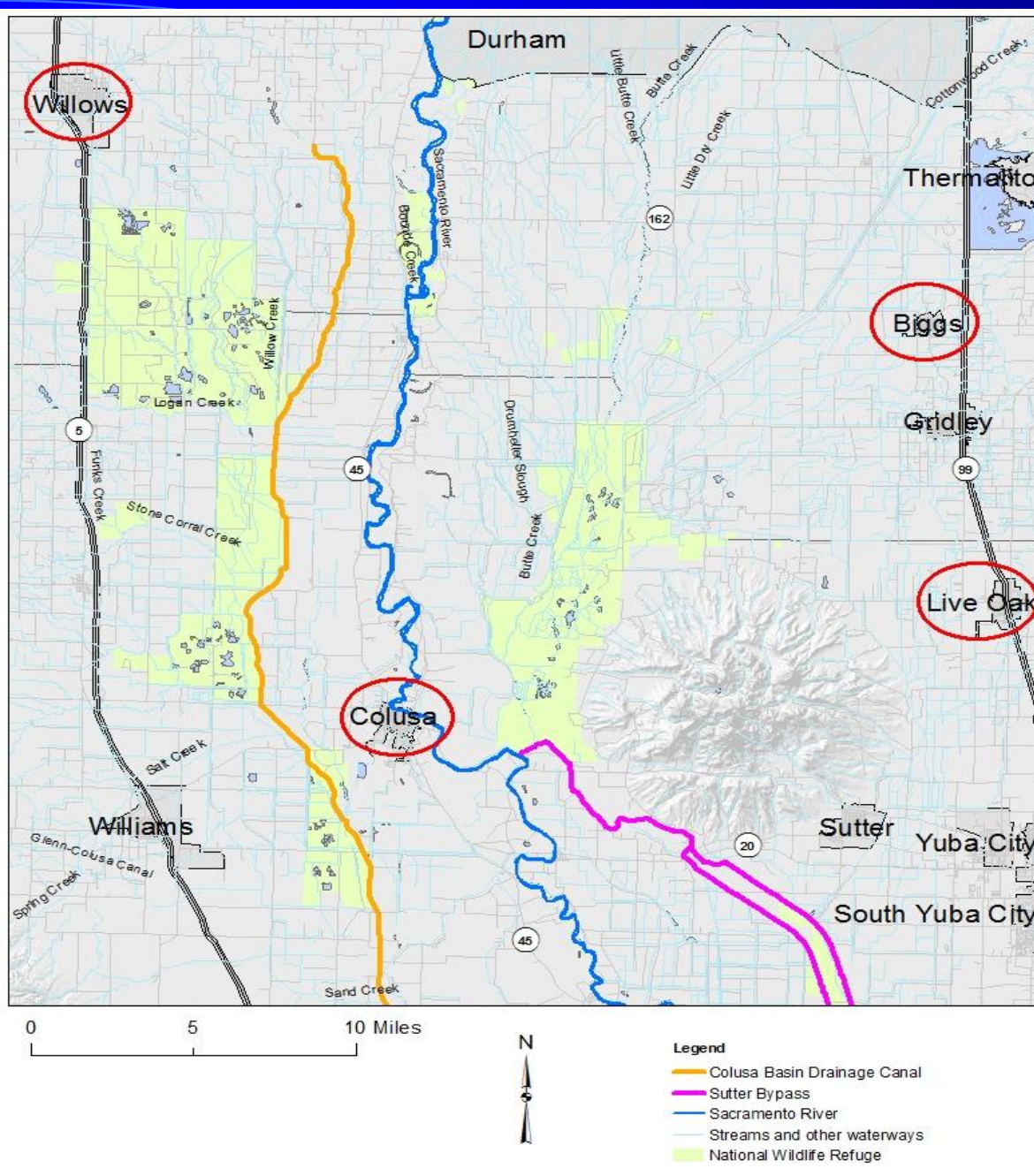
Compile Background/ Survey Conditions and Uses

- Sacramento Archetype Study
 - ✓ Review Past Monitoring Information
 - ✓ Meetings with Local Water/Irrigation District Representatives
 - ✓ Field Surveys



Sacramento Valley Study Area

- Approximately 400 Square miles
- Contains a mix of constructed, modified and natural channels used for agriculture
- No evidence of attained MUN use



Initial Alternatives/CEQA scoping

- Three CEQA scoping/public workshops
 - ✓ WILLOWS, October 24, 2012
 - ✓ RANCHO CORDOVA, November 2, 2012
 - ✓ FRESNO, November 7, 2012
- Discussed Potential Alternatives/Refinement

Design/Conduct/Assess Monitoring

- Monitoring Plan
 - ✓ Reviewed and Approved by CV-SALTS
- Monitoring 2x monthly (started April 2012)
- Coordinated Effort
 - ✓ Internal support
 - ✓ POTWs
 - ✓ CV-SALTS

Monitoring Frequency/Constituents

- Twice Monthly
 - ✓ Field measurements/Habitat Observations
 - Conductivity, pH, DO, temperature, photos
- Monthly
 - ✓ Constituents identified during Reasonable Potential Analyses
 - Nitrate, Al, As, THMs, Fe, Mn
 - ✓ Total coliform/*E.coli*
- Quarterly/Annually
 - ✓ Remaining primary/secondary MCLs

Summary of Exceedances* (April – Sept. 2012)

Colusa Subarea				
Constituent	Criteria	Upstream	Effluent	Downstream
Aluminum - Total	200 µg/L	X		X
Arsenic – Total	10 µg/L	X		X
Iron – Total	300 µg/L	X		X
Manganese - Total	50 µg/L	X		X
Manganese – Dissolved (July-Sept only)	50 µg/L	X		
Nitrate as Nitrogen	10 mg/L		X	X
Sodium	20 mg/L	X	X	X
Total Dissolved Solids	500 mg/L	X	X	X
Conductivity	900 µS/cm	X	X	X

*Exceedances reflect concentrations above the primary or secondary MCL

Refine Alternatives

Build off of previous work

- Inland Surface Water Plan (ISWP)
 - Central Valley Water Board Report (1993)
- Ag Water Task Force Report (AgWTF)
 - Public Advisory Task Force reporting to the State Water Board (Chapter 4, 1995)

Current Project - Consensus Items

- Agreement with past recommendations
 - Recognition that Agricultural Waters are Unique
 - Protection of Existing Uses
 - Ancillary Structures and Individual Closed Recirculating Systems may require unique regulation
 - Need for New or Limited Beneficial Uses
 - Need for Clear Definitions
- Use ISWP water body categorization flow chart with modifications

Refining Alternatives

CEQA Scoping Considerations

1. Use of the Sacramento Valley archetypes to provide a template for the whole Central Valley
2. Definition of “Ag Dominated”
3. Impact of MUN de-designation to downstream sources and overall water quality
4. Monitoring of downstream sources

Refining Alternatives

CEQA Scoping Considerations

5. Impact of Recycling and conservation efforts
6. Economic Considerations to Farmers and Local Water Districts
7. Input from California Department of Public Health
8. Other impacted municipalities or point sources

Refine Alternatives - Next Steps

- January 2013
 - ✓ Review CEQA comments
 - ✓ Working Definitions
 - ✓ Categorization approach
 - ✓ Beneficial Uses/Water Quality Objectives
- March 2013
 - Beneficial Uses/Water Quality Objectives
 - Implementation

Refine Alternatives - Next Steps

- May 2013
 - Implementation
 - Monitoring/Surveillance
- June/July 2013
 - Continue previous topics as needed
 - Other Policy Issues

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1st Phase of a Larger Effort

The MUN beneficial use project is the **initial** phase of a larger effort to evaluate appropriate protection of ALL applicable beneficial uses in Ag dominated water bodies

Inland Surface Water Plan

Drainage Area	# Agency Reports	Ag Dominated Natural Water Bodies		Ag Constructed Water Bodies	
		#	Miles	#	Miles
Sacramento	93	68	541	2485	5160
San Joaquin	63	46	538	1715	4689
Delta	70	13	126	789	1548
Tulare Lake	109	28	268	1068	6460
Foothills	24	5	39	234	661
Area Subtotal:	359	160	1512	6291	18519
Major Waterways	5	0	0	28	1293
Total:	364	160	1512	6319	19812

Central Valley Water Board approved the process and list

Questions?